



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/537,220

06/03/2005

Yoshimi Oura

10921.326USWO

1869

52835

7590

07/09/2008

HAMRE, SCHUMANN, MUELLER & LARSON, P.C.

P.O. BOX 2902

MINNEAPOLIS, MN 55402-0902

EXAMINER

KAFIMOSAVI, HOSEIN

ART UNIT

PAPER NUMBER

1795

MAIL DATE

DELIVERY MODE

07/09/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/537,220	Applicant(s) OURA ET AL.	
	Examiner HOSEIN KAFIMOSAVI	Art Unit 4132	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>02/14/2007, 10/04/2006, 06/03/2005</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Art Unit: 1795

4. Claims 1, 2, 4, and 11-13 are rejected under 35 U.S.C. 103(a) as being obvious over applicant's admitted prior art (JP-B 8-10208, US 5,320,732) in view of Rankin et al (US 6,908,535).

As to claim 1, applicant's admitted prior art discloses an analyzing device (9) used with an analytical tool (8) mounted to the device, the analytical tool providing a reaction field that includes sample liquid and comprising a first (81) and a second (82) electrodes for applying voltage to the reaction field, the analyzing device comprising: a connector (90) coming into contact with the first and the second electrodes; and an analysis circuit (93) for performing sample analysis based on sample liquid information obtained from the analytical tool through the connector (Fig. 7; Pg. 1 and 2 of specification).

Applicant however does not disclose that the analyzing device comprises a disturbing-noise countermeasure unit (for absorbing disturbing noise inputted through the connector).

Rankin discloses an integrated current-to-voltage conversion circuit commonly embedded in between the connector and the analysis circuit of above analyzing devices that converts a first current received from the analytical tool to an output voltage representative of the first current sent to the analysis circuit, wherein the integrated current-to-voltage conversion circuit includes a disturbing noise countermeasure unit (EDR1,2,3,4; electrostatic discharge protection) (Col. 2, lines 4-22; Col. 4, lines 52-67).

It would have been obvious to one with ordinary skill in the art at the time of the invention to have the analyzing device of applicant's admitted prior art comprise a disturbing-noise countermeasure unit integrated into the circuit as taught by Rankin, because it allows the circuitry within the analyzing device to be protected against electrostatic discharges.

As to claim 2, applicant's admitted prior art in view of Rankin, discloses the analyzing device above, further comprising a signal line connecting the connector and the analysis circuit to each other; wherein the disturbing-noise countermeasure unit is provided at an inner point of the signal line (Rankin at Fig. 3 & 4; Col. 2, lines 4-22; Col. 4, lines 52-67).

As to claim 4, applicant's admitted prior art in view of Rankin, discloses the analyzing device above, wherein the disturbing-noise countermeasure unit comprises a resistor (Rankin at Fig. 3 & 4; Col. 2, lines 4-22; Col. 4, lines 52-67).

As to claim 11, applicant's admitted prior art in view of Rankin, discloses the analyzing device above, wherein the analytical tool is adapted to measure a glucose level in blood; (and wherein the analysis circuit calculates the glucose level in blood based on a current obtained when voltage is applied to the reaction field by utilizing the first and second electrodes) (Applicant admitted prior art at Fig. 7; Pg. 1 and 2 of specification).

As to claim 12, applicant's admitted prior art in view of Rankin, discloses the analyzing device above, wherein the analytical tool comprises a reagent portion

(containing a reagent to react with glucose) (Applicant admitted prior art at Fig. 7; Pg. 1 and 2 of specification).

As to claim 13, applicant's admitted prior art in view of Rankin, discloses the analyzing device above, wherein the device is portable (Applicant admitted prior art at Fig. 7; Pg. 1 and 2 of specification).

5. Claims 3, 5 and 8 - 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admitted prior art in view of Rankin as applied to claim 1 above, and further in view of Horiba, Ltd (JP03-128848 cited based on oral translation).

As to claim 3, applicant's admitted prior art in view of Rankin, discloses the analyzing device above, comprising a disturbing-noise countermeasure unit (Rankin at Fig. 3 & 4; Col. 2, lines 4-22; Col. 4, lines 52-67).

However, applicant's admitted prior art in view of Rankin, does not disclose that the disturbing-noise countermeasure unit is provided at the connector.

Horiba discloses an analyzing device (2) used with an analytical tool (1) mounted to the device, the analytical tool providing a reaction field (11) that includes sample liquid and comprising a first (31) and a second (31) electrodes for applying voltage to the reaction field, the analyzing device comprising: a connector (5) coming into contact with the first and the second electrodes; furthermore Horiba discloses that the connector contains a disturbing-noise countermeasure unit (Fig 8-10) connected to the connector.

It would have been obvious to one with ordinary skill in the art at the time of the invention to have the analyzing device of applicant's admitted prior art in view of Rankin

comprise a disturbing-noise countermeasure unit provided at the connector as taught by Horiba, because it allows a more compact and convenient apparatus to manufacture.

As to claim 5, applicant's admitted prior art in view of Rankin and Horiba, discloses the analyzing device above, wherein the disturbing-noise countermeasure unit comprises a capacitor (C) (Horiba at Fig. 9).

As to claim 8, applicant's admitted prior art in view of Rankin, discloses the analyzing device above, wherein the disturbing-noise countermeasure unit comprises a varistor (Z, 35) (Horiba at Fig. 10).

As to claim 9, applicant's admitted prior art in view of Rankin, discloses the analyzing device above, wherein the disturbing-noise countermeasure unit comprises a combination of at least a resistor and a capacitor (R1,C) (Horiba at Fig. 9).

As to claim 10, applicant's admitted prior art in view of Rankin, discloses the analyzing device above, wherein the disturbing-noise countermeasure unit comprises a combination of at least a resistor and a capacitor (R1, C) (Horiba at Fig. 9).

6. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admitted prior art in view of Rankin and Horiba as applied to claim 1 above, and further in view of Pahr (US 5,287,008).

As to claim 6, applicant's admitted prior art in view of Rankin and Horiba, discloses the analyzing device above, comprising a disturbing-noise countermeasure unit (Rankin at Fig. 3 & 4; Col. 2, lines 4-22; Col. 4, lines 52-67).

However, applicant's admitted prior art in view of Rankin and Horiba, does not disclose that the disturbing-noise countermeasure unit comprises a coil.

Pahr discloses an electrostatic discharge noise suppression system for electronic devices that uses ferrite cores and coils (27, 28) for electrostatic discharge noise suppression between the inlets and the devices (Fig. 4; Column 6, lines 40-50).

It would have been obvious to one with ordinary skill in the art at the time of the invention to have the analyzing device of applicant's admitted prior art in view of Rankin and Horiba to comprise a disturbing-noise countermeasure unit made of a coil as taught by Pahr, because then the noise can be reliably controlled in a simple and cost-beneficial way.

As to claim 7, applicant's admitted prior art in view of Rankin, Horiba and Pahr, discloses the analyzing device above, wherein the disturbing-noise countermeasure unit comprises a ferrite core (29,32) (Fig. 4; Column 6, lines 40-50).

Contacts/Correspondence Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HOSEIN KAFIMOSAVI whose telephone number is (571)270-5271. The examiner can normally be reached on Mon - Fri, 7:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alexa Neckel can be reached on (571)272-1446. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1795

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/H. K./

Examiner, Art Unit 4132

/Alexa D. Neckel/

Supervisory Patent Examiner, Art Unit 1795